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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE  
BEFORE THE BOARD OF APPEALS

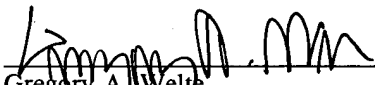
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Group Art Unit: 3712 )  
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Serial No.: 09/702,318 )  
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Examiner: Kurt Fernstrom )  
 )  
Filing Date: October 31, 2000 )  
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Title: Active Learning )  
Framework )  
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Gregory A. Welte

APPEAL BRIEF

The fee for this Brief may be billed to Deposit Account 50 - 1673 (NCR Corporation, Teradata Division).

1. REAL PARTY IN INTEREST

NCR Corporation.

2. RELATED APPEALS AND INTERFERENCES

None known.

3. STATUS OF CLAIMS

Claims 1 - 8 and 10 - 18 are pending, rejected, and appealed.

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#### **4. STATUS OF AMENDMENTS**

No Amendments-after-Final have been submitted.

#### **5. SUMMARY OF INVENTION**

As the Specification, page 1, line 6 et seq., explains, many types of computer-assisted education present lessons in a rigid, inflexible sequence. As the Specification explains in the OBJECTS OF THE INVENTION, beginning on page 2, the invention provides a more flexible approach, which accommodates differences in students.

In one form of the invention, an assessment is made of a student's status, as indicated in block 103 in Figure 4. Based on that assessment, as the Specification indicates on page 10, line 20 et seq., the invention makes available a collection of lessons for which the student is suited, and from which the student may select lessons. (See original claim 1: page 21, lines 1 - 11.)

#### **6. ISSUES**

Whether claims 1 - 8 and 10 - 15 are obvious under 35 USC § 103, based on Siefert and Ziv-El.

Whether claims 16 - 18 are obvious under 35 USC § 103, based on Siefert, Ziv-El, and Truluck.

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## **7. GROUPING OF CLAIMS**

Two groups of claims are present, namely, claims 1 - 8 and 10 - 15 (ie, Group 1) and claims 16 - 18 (ie, Group 2.)

Claims 1, 3, 6, 7, 8, 10 - 14 and 16 - 18 **DO NOT** stand or fall together.

## **8. ARGUMENT**

### **Summary of Argument**

All rejections are obviousness-type. Some rejections are based on two references (Siefert and Ziv-El), but claims 16 - 18 were rejected based on those two references plus a Truluck reference.

### Claims 10 - 13

The rejections of claims 10 - 13 are based on prior art which was Officially Noticed. Appellant, in her previous Amendment, traversed the Notice, and requested evidence in support of the Noticed prior art. (See MPEP § 2144.03.)

To date, no evidence has been produced. Thus, the rejections of claims 10 - 13 are unsupported by prior art, and cannot stand.

Further, as explained below, for at least one of these claims, the Noticed subject matter does not correspond to any element in the claim.

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Claim 16 - 18

Claim 16 recites:

16. Method according to claim 1, and further comprising the steps of

- (1) detecting the arrival of predetermined periods in time and
- (2) during said periods, refraining from making lessons available to the display.

[A practical reason for this prohibition would be that, during mid-term exams, no lessons are made available on the computer system, only examinations. (See Specification, page 11.)]

Claim 16 states that, during the "periods," no lessons are "available to the display." Thus, **no students at all** can see lessons during the "period" (because "no lessons" are available.)

That has not been shown in the applied references.

The Final Office Action relies on Truluck to show claim 16. However, Truluck states that, (1) for a given student, (2) at certain times, (3) no lessons are presented on the computer **for that student**.

However, **other students** can take lessons on that computer, at those times.

Thus, the prohibition of claim 16 is not present.

The Final Action, page 8, attempts to rebut this conclusion by asserting that "Nowhere does claim 16 recite that ALL students

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are prevented from viewing a lesson at a given time." However, this assertion ignores the fact that "ALL students [being] prevented from viewing a lesson at a given time" is a **necessary implication** of claim 16. If that implication is not present, then claim 16 is not found in Truluck.

This is elementary logic. When you say "If A then B," that means that, if A occurs, then B occurs too. Conversely, that also means that, if B is absent, then A is also absent (because if A were present, then B would be present).

Similarly, if claim 16 is present in Truluck, then **no students** can view the lessons. But Truluck states that **some students** can view the lessons. ERGO, claim 16 cannot be present.

Restated, claim 16 states that "no lessons" are available to the display during the "periods." If "no lessons" are available during the periods, then **no students** can view lessons during the period. Thus, **all students** are prevented from viewing lessons during the period. But Truluck states that **some students** can view lessons at the time in question. Thus, claim 16 is not present in Truluck.

And that is the issue: whether Truluck shows claim 16. Claim 16 is not required to contain the "ALL students" recitation.

The preceding applies to claims 17 and 18, which are similar to claim 16, but depend from different parent claims.

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**Claim 10**

Claim 10 recites:

10. A method, comprising:
- a) identifying a person viewing a display;
  - b) presenting, on the display, a collection of icons, each of which causes a lesson to be presented when actuated; and
  - c) evaluating whether the person has attained predetermined prerequisites and, if so, presenting additional icons on the display.

Claim 10 was rejected based on Official Notice:

Official Notice is taken that it is well known to display additional icons upon achievement of certain tasks, as for example in computer games where certain advanced scenarios are not available for selection until certain tasks are performed.

(Final Action, sentence bridging pages 3 and 4.)

The Noticed subject matter does not show the recitations of claim 10. Claim 10 does not recite the generalized process of displaying "additional icons upon achievement of certain tasks." Nor does claim 10 recite a video game.

The Official Notice, even if valid, is insufficient to support the rejection.

The problem is that the PTO, in effect, first describes claim 10(c) in a certain way: "advanced scenarios are not available for

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selection until certain tasks are performed." Then, the PTO purports to find **that description** in Officially Noticed prior art. But that does not show claim 10(c) in the prior art.

At best, it shows the PTO's description in the prior art. But the PTO has not shown that its description corresponds to claim 10(c).

Claim 10(c) must be shown in the prior art, not a version, or description, of claim 10(c) developed by the PTO.

#### Claim 11

Claim 11 recites:

11. Method according to claim 10, and further comprising:

d) removing selected icons from the collection of icons, if the person has attained the predetermined prerequisites.

Claim 11 was also rejected based on Official Notice:

. . . it is well known in the art to remove options for choosing lessons where the user has already demonstrated mastery of the material.

(Final Action, page 4, lines 3 - 4.)

Appellant has traversed the Official Notice, and here repeats the Traverse, and requests evidence in support. (See MPEP § 2144.03.)

A practical reason exists for this request. Appellant submits

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that the Official Notice makes no sense. The undersigned attorney obtained a Masters degree in electrical engineering. Some could say that, as the name implies, a certain "mastery" has been demonstrated.

The undersigned attorney is aware of no removal of "options for choosing lessons" because of this degree. In fact, greater options are now available. Certain courses can be taken which were prohibited before.

Further, the PTO seems to assert that provisions exist for preventing people from taking courses twice. But it is well known that people do that, for review.

Therefore, Appellant requests the PTO to justify its assertion.

#### Claim 1

The following discussion of claim 1 applies also to the other independent claims, namely, claims 8, 10, and 12 - 14.

#### CLAIM ELEMENTS NOT SHOWN IN APPLIED REFERENCES

A basic problem is that the **actual elements** of claim 1 have not been shown in the references. MPEP 2143.03 states:

To establish prima facie obviousness . . . **all the claim limitations** must be taught or suggested by the prior art.



Instead, the Final Action offers characterizations of the references, and then concludes that the references, when combined, show claim 1. But those characterizations do not correspond to the **actual elements** of claim 1.

For example, the Final Action, page 2, second-to-last full sentence, states:

Ziv-El discloses . . . delivering lessons to a user whereby the user can access a list of available lessons based on the educational standing of the user by pressing button 163, and then selecting one of the lessons to work on.

The Final Action relies on this characterization of Ziv-El to show claim 1(b) and (c). But this characterization does not correspond to claim 1, as will now be shown.

Claim 1 recites, inter alia:

. . .

- a) making an assessment of the educational standing of a person utilizing the display;
- b) selecting a list of lessons available;
- c) based on the assessment, identifying lessons available to the person and displaying corresponding icons on the display;

. . .

As just seen, claim 1 recites two groups of lessons:

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- 1) those on the "list" of claim 1(b), and
- 2) those "identified" in claim 1(c).

These two groups of lessons have not been shown in Ziv-El, nor Siefert. At best, Ziv-El, as characterized by the PTO, shows a single group of available lessons.

In addition,

- 1) the "assessment,"  
plus
- 2) the use of that assessment in  
identification of which lessons to make  
available to the student,

has not been shown in the applied references. Some type of "assessment" may be shown in Siefert, but not the claimed assessment, plus its particular use in selecting lessons.

This absence raises a second problem.

The Office Action relies on Siefert (not Ziv-El) to show the "assessment." However, no connection has been made between any assessment in Siefert and any selection of lessons in Ziv-El.

That is, claim 1(c) states that the "assessment" is used to "[identify] lessons . . . and [display] corresponding icons." But if that "assessment" is shown in Siefert, then where is the connection, or carryover, into Ziv-El, which is cited to show claim 1(b) and (c) ?

Without a showing of a connection, the rejection cannot

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stand.

From another perspective, MPEP § 706.02(j) states:

Contents of a 35 U.S.C. 103 Rejection

. . . .

To establish a prima facie case of obviousness, three basic criteria must be met.

. . . .

Second, there must be a reasonable expectation of success.

. . . .

The teaching or suggestion to make the claimed combination **and the reasonable expectation of success must both be found in the prior art** and not based on applicant's disclosure.

To show an "expectation of success," the PTO must show some connection between the "assessment" of Siefert and Ziv-El, and how that connection leads to claim 1. That is, the PTO must show **how Siefert's assessment is used to select the Ziv-El's lessons, as in claim 1.**

That has not been done.

NO TEACHING TO COMBINE REFERENCES

No valid teaching for combining the references has been given. The rationale is that the combination provides "greater autonomy in choosing the lesson to be received." (Final Action, page 2,

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last full sentence.)

However, several problems exist in this rationale. One is that no evidence has been given to prove that "greater autonomy" is actually obtained. The rationale is a naked conclusion.

A second problem is that the Final Action, page 6, middle of second paragraph, asserts that Ziv-El provides the student with "greater autonomy" than does Siefert. Thus, if "greater autonomy" is the goal, then one would simply implement Ziv-El's teachings, but **by themselves**. There is no reason to add the Siefert reference to attain the "greater autonomy."

Stated another way, the **combination** of references does not provide the "greater autonomy." Ziv-El, by the PTO's admission, does that by himself. Thus, the rationale (greater autonomy) does not lead to the **combination** of references.

A third problem is that the goal of "greater autonomy" has not been shown in the prior art.

A fourth problem is that the PTO's rationale does not comply with the CAFC's decision of In re Dembiczak, 175 F. 3d 994, 50 USPQ2d 1614 (Fed. Cir. 1999), as explained herein.

ADDITION OF "ICONS" DOES NOT COMPLY WITH LAW  
PART I

Claim 1(c) and (d) recite certain icons:

c) based on the assessment, identifying

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lessons available to the person and displaying corresponding icons on the display; and

d) accepting selection of an icon from the person, and presenting the chosen lesson.

The Final Action relies on an AFFIDAVIT and some references to show icons used in video games, in the prior art. However, several problems exist in the PTO's reliance on these icons.

One is that no teaching has been given for combining the video-game-icons with Ziv-El and Siefert.

A second problem is that the video-game-icons which the PTO relies on are of the following type:

Official Notice is taken that it is well known to display "active" and "inactive" icons, where the user can initiate a sequence only by selecting an "active" icon, as for example in computer games where certain advanced scenarios are not available for selection until certain tasks are performed.

(Final Action, page 3, second-to-last full sentence.)

Appellant offers the following specific example:

-- In a video game, the player is attacked by Invading Cyborgs.

-- When the player shoots 100 Cyborgs, new icons representing photon torpedoes are made available to the player.

Here is the problem: The teaching of the video games is of

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this type: "When you shoot 100 Cyborgs, you get more photon-torpedo-icons."

-- How is that combined with Ziv-El and Siefert ?

-- Where is the expectation-of-success, as required by the MPEP ?

-- What is the combination ? Are students awarded photon torpedoes when they pass exams ?

Several other problems also arise. The Final Action, page 7, second paragraph, offers a characterization of icons in video games. The Final Action asserts that certain video-game-icons

- 1) show scenarios which are unavailable at the moment,
- 2) require certain prerequisites to be accomplished, and
- 3) when the prerequisites occur, the icons, and their scenarios, become available.

The Final Action then asserts that the video-game-icons are similar to the claimed icons, in the three respects just enumerated. Several problems exist in this type of analysis.

One is that the PTO characterizes both the video-game-icons and Appellant's icons, and finds the characterizations similar.

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However, any similarity in characterizations is **irrelevant**. That is, Appellant's claims **do not recite**

- 1) scenarios which are unavailable at the moment,
- 2) certain prerequisites to be accomplished, and
- 3) when the prerequisites occur, the icons, and their scenarios, become available.

If the claims did so, then those recitations may read on the video-game-icons.

Instead, Appellant's claim 1 recites

- c) based on the assessment, identifying lessons available to the person and displaying corresponding icons on the display; and
- d) accepting selection of an icon from the person, and presenting the chosen lesson.

Claims 6 and 7 recite:

6. Method according to claim 1, wherein some courses on the list are not represented by icons.

7. Method according to claim 1, wherein some courses on the list are represented by icons, but selection of such icons causes no display of a corresponding lesson.

Claim 10 recites:

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10. A method, comprising:

- a) identifying a person viewing a display;
- b) presenting, on the display, a collection of icons, each of which causes a lesson to be presented when actuated; and
- c) evaluating whether the person has attained predetermined prerequisites and, if so, presenting additional icons on the display.

None of the icons recited in claims 1, 6, 7, and 10 have been shown in the PTO's video games.

A second problem is perhaps an elaboration of the first. The fact that certain parallels can be drawn between Appellant's icons and video-game-icons does not mean that the latter suggest, or are identical to, the former.

ADDITION OF "ICONS" DOES NOT COMPLY WITH LAW  
PART II

As just explained, the PTO finds video-game-icons in the prior art, which icons

- 1) show scenarios which are unavailable at the moment,
- 2) require certain prerequisites to be accomplished, and
- 3) when the prerequisites occur, the icons, and their scenarios, become available.

However, as explained above, Appellant's claims do not recite that.



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The PTO has never shown how the video-game-icons get converted into an icon, for example, of the type recited in claim 10:

b) presenting, on the display, a collection of icons, each of which causes a lesson to be presented when actuated; and

c) evaluating whether the person has attained predetermined prerequisites and, if so, presenting additional icons on the display.

That is, the icons of claim 10 cause "a lesson to be presented when actuated."

The PTO has provided no teaching for modifying the video-game-icons into those recited in Appellant's claims. Thus, even if the video-game-icons are combined with Ziv-El and Siefert, Appellant's claims are not attained.

#### REDUCTIO AD ABSURDUM

Assume I invented the corkscrew, and I file a claim like "a rod bent into a helical form which can be screwed into a cork in a wine bottle."

The PTO's reasoning would allow the human hand to be used as prior art. Why ? Both can be used to remove a stopper from a bottle.

The flaw should be evident. It may be true that a **single** description or characterization can be accurately applied to **BOTH** the corkscrew and the human hand. But that does not mean that the

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corkscrew-claim reads on the human hand, nor does that make the human hand prior art to the corkscrew.

The question is whether the **language of the claim** reads on the hand, not whether a single phrase can be accurately used to describe both.

Similarly, in the case of the icons, the question **IS NOT** whether (1) Appellant's icons present new scenarios when milestones are achieved (or whatever), and (2) video-game-icons do the same. Rather, the question is whether the **language** of Appellant's claims read on the video-game-icons.

The language does not.

#### Comments

This Summary is part of the Argument. Not all points raised in this Summary of Argument are elaborated below. Some are considered self-explanatory.

**End Summary**

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**ARGUMENT**  
**RESPONSE TO OBVIOUSNESS REJECTIONS OF CLAIMS 1 - 8 and 10 - 15,**  
**GROUP 1**

These claims were rejected as obvious, based on Siefert and Ziv-El.

**CLAIM 1**

Claim 1 recites:

1. In a method of presenting educational lessons on a display, the improvement comprising:

- a) making an assessment of the educational standing of a person utilizing the display;
- b) selecting a list of lessons available;
- c) based on the assessment, identifying lessons available to the person and displaying corresponding icons on the display; and
- d) accepting selection of an icon from the person, and presenting the chosen lesson.

**Even if References Combined, Claim 1 is not Attained**  
**Part I**

Under claim 1(c), an "assessment" is used to "identify" lessons as being available to the student. Those lessons are taken from the "list" which was "selected" in claim 1(b).

The twofold process of

- 1) selecting a list of lessons, as in claim 1(b), and

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2) identifying lessons in that list, based on the assessment, as in claim 1(c), has not been shown in the prior art.

That is, under claim 1, two distinct groups of lessons are present: (1) the "list" of lessons in claim 1(b) and (2) those which are made available to the student, as in claim 1(c). The latter are taken from the list.

Two corresponding groups of lessons have not been shown in the prior art.

**Even if References Combined, Claim 1 is not Attained  
Part II**

Claim 1 states that the person who is "assessed" is "utilizing the display." That has not been shown in the prior art.

**Even if References Combined, Claim 1 is not Attained  
Part III**

Identification "Based on" "Assessment"  
Is Absent from References

The PTO relies on the Siefert reference to show claim 1(a), and Ziv-El to show the rest. However, claim 1(c) recites "identifying lessons available to the person" "based on **the assessment.**" "The assessment" is that of claim 1(a).

Thus, a logical problem arises in this application of the references. Ziv-El is cited to show, inter alia, "identifying

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lessons available" "based on **the assessment**," but Ziv-El fails to show "the assessment." Consequently, Ziv-El's identification cannot be "**based on**" any "assessment."

Restated, if "the assessment" is absent from Ziv-El, then he cannot show identification of lessons "**based on**" the "assessment."

Further, if "the assessment" refers to an assessment of the other reference, namely, Siefert, then some connection between Ziv's selection and Siefert's assessment must be shown. But none has been shown.

Restated, Ziv-El does not discuss an assessment of his own, nor reliance on any other assessment. Given those facts, why would Ziv-El rely on an "assessment" made in another patent ? Appellant submits that an answer to this question is required, in order to support the rejection.

Therefore, the claim recitation of identifying lessons "**based on** the assessment" is not found in the references, even if combined.

#### Rebuttal to PTO's Response

In an apparent attempt to forestall this conclusion, the Final Office Action, page 5, in its section entitled "Response to Arguments," states:

. . . With respect to the limitation of identifying lessons based on the assessment,

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that limitation is disclosed not by Ziv-El,  
but by Siefert. The assessment is disclosed  
at column 8, line 60 to column 9, line 11.

Appellant points out that several problems exist in this statement.

#### Problem 1

One problem is that the statement mis-represents the claim recitation in question. The claim recitation **does not merely** refer to "identifying lessons based on the assessment." Rather, claim 1 recites:

c) based on the assessment, identifying lessons available to the person and displaying corresponding icons on the display; and

d) accepting selection of an icon from the person, and presenting the chosen lesson.

Claim 1 states that the person (ie, the student) **selects a lesson** from the "lessons identified" as "available" (to the student). The lessons are identified as "available" (to the student), **based on** the "assessment." Siefert does not show that.

Thus, Siefert does not show the subject matter of claim 1 which is attributed to him. Claim 1 has not been shown in the references, even if combined.

#### Problem 2

Ziv-El states that the teacher selects a group of lessons,

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from which the student makes choices. (Column 20, lines 20 - 22.) But Ziv-El appears to say nothing about the teacher's making the selection "based on" an "assessment." Thus, at best, Ziv-El may show claim 1(b), wherein the teacher selects the group, but not claim 1(c), selecting-based-on-assessment.

At best (for the PTO), the selection process in Ziv-El is analogous to the selection process of claim 1(b), but taken in isolation from the rest of the claim. That is not sufficient. Section 103 requires that the claim "as-a-whole" be shown in the references.

#### Problem 3

Ziv-El appears to be contradictory to the notion of assessing the student, and then presenting a list from which the student can choose a lesson. One reason is that Ziv-El states that the student may take a self-paced approach, if desired. (Column 20, line 11.) Such a student would seem to choose his/her own lessons, and thus assessment would seem non-relevant.

Ziv-El is contrary to the notion of assessing the student, in order to determine what lessons the student should take.

#### Interim Conclusion

Therefore, Applicants submit that, even if the references are combined, claim 1 is not attained. MPEP § 2143.03 states:

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To establish prima facie obviousness . . . **all the claim limitations** must be taught or suggested by the prior art.

#### Problem 4

Official Notice has been taken that "icons" are widely known. Appellant points out that the vehicle of "Official Notice," if properly used, merely removes the requirement of citing a paper document to show the Noticed subject matter. But "Official Notice" does not remove the requirement of showing a **teaching** for combining the Noticed subject matter with the other references. A teaching is still required.

No teaching for adding icons to the applied references has been shown. Thus, even if the icons are present in the prior art, no teaching has been given for combining them with Siefert and Ziv-El.

Further, claim 1 does not recite the mere presence of "icons." Claim 1 states that the icons have at least two specific characteristics.

#### ONE CHARACTERISTIC OF CLAIMED ICONS

One is that the icons "correspond" to the lessons selected. Thus, the identity of the groups of icons to be displayed is not known until the lessons to be made available are identified.



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That characteristic is not found in generic icons.

#### SECOND CHARACTERISTIC

A second characteristic is that selection of an icon causes a specific event, namely, presentation of the lesson represented by the icon. That is not found in generic icons.

As just stated, common, garden-variety icons do not possess these characteristics. For example, when one launches the program Windows, a screen eventually appears which displays icons. However, if you shut down the program, and re-launch it again, the **same icons** will again appear.

Thus, generic icons do not show the properties recited in the claim. For example, as to icons appearing in Windows,

- Those icons do not "correspond" to any "lessons selected," as in claim 1: the icons in Windows are always the same; and

- Actuation of an icon in Windows does not result in presentation of any corresponding lesson [for two reasons: (1) icons in Windows do not do that, and (2) no corresponding lessons are present].

Therefore, the particular claimed icons, with their particular properties, have not been shown in the prior art. The existence

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of generic icons in the prior art does not cure this defect.

Re: AFFIDAVIT

This conclusion is true, despite the AFFIDAVIT dated February 21, 2003, executed by Mr. Kurt Fernstrom. That AFFIDAVIT may support the existence of certain icons found in the prior art of video-games, as implemented on personal computers. But it does not show icons having the two properties just discussed.

Further, Appellant submits that the video-game art is non-analogous to the art of computer-based education.

Therefore, Appellant submits that, even if the references are combined, the recitations of claim 1 are not found.

#### **No Teaching Given for Combining References**

The rationale given for combining the references is that

[The combination of references allows] the user to have greater autonomy in choosing the lesson to be received.

(Final Office Action, page 2, bottom.)

However, several problems exist in this rationale.

#### Problem 1

One is that "greater autonomy" is merely a characteristic supposedly obtained when the references are combined. However, the

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references, when combined, would also contain dozens, if not hundreds, of **other characteristics**.

Plainly, the existence of any given characteristic in the references, after being combined, is not a teaching for making the combination in the first place.

Stated another way, it is reasonable to assume that the references, when combined, will possess some characteristics. It would seem **impossible** that **no characteristics** would be present. Given that, Applicants fail to see how identification of a specific characteristic acts as a teaching under section 103 for combining the references.

#### Problem 2

A second problem is that no teaching in the prior art has been given which suggests that pursuit of "greater autonomy" is desirable. A teaching is required.

#### Problem 3

If "greater autonomy" is desired, then no references at all should be combined. That is, if a student wishes the greatest autonomy possible, then the student will take any courses he/she wishes, at any school or university, either in person or remotely.

That precludes reliance on either the Siefert or Ziv-El reference, which place limitations on the student's autonomy.

Problem 3

A third problem is that the pursuit of "greater autonomy" is **directly contrary** to claim 1. Claim 1(b) states that a "list" of "available" "lessons" is "selected." However, not all lessons on that list are made available to the student: only those "identified," "based on the assessment."

Thus, claim 1 teaches against "greater autonomy." Claim 1 recites making **fewer** lessons available to the student, fewer than those contained in the "list."

A teaching for combining references cannot be used, if it is contrary to a claim teaching.

If the student in claim 1 had true autonomy, the student could select any lesson whatever. But that is not the case in claim 1.

Problem 4

A fourth problem is that the rationale does not follow the CAFC's decision of In re Dembiczak, 175 F. 3d 994, 50 USPQ2d 1614 (Fed. Cir. 1999).

In brief, Dembiczak states that

- **objective evidence** of a teaching for combining references must be provided;
- the Examiner's speculation does not qualify as objective evidence;

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- numerous sources can provide a teaching to combine references;
- knowledge of one skilled in the art can act as a source;
- however, THE RANGE OF SOURCES AVAILABLE DOES NOT DIMINISH THE REQUIREMENT FOR ACTUAL EVIDENCE;
- broad conclusory statements by the Examiner do not qualify as evidence; and
- "particular factual findings" as to the teaching are required, and gives reasons why **facts** are necessary.

In the present case, no "particular factual findings" based on "evidence" have been given.

Therefore, for the preceding reasons, Applicants submit that the rejection is insufficient under section 103.

#### **Response to "Inherency" Argument**

The Final Action, page 5, asserts that

. . . in any teaching situation, lessons are **inherently presented** based on an "assessment" of the student, even if the assessment is as broad as what grade the student is in.

Thus, the very fact that a student is in a certain teacher's class means that a selection of lessons offered by the teacher is made

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based on an assessment.

Appellant submits that several problems exist in this assertion.

#### Problem 1

One problem is that the assertion appears to be false, as a matter of fact. In 1981, the undersigned attorney has earned a Masters Degree in Electrical Engineering from the University of Illinois at Champaign-Urbana. In every class, the **same lessons** were given to all students in the class. That is, all students attended the **same lectures** and were given the **same homework problems**.

There was no "assessment" of each student, with selection of lessons, based on the assessment.

Thus, it is a false statement that lessons are "inherently presented," based on an "assessment" of the student.

#### Problem 2

A second problem is that the material which the PTO asserts to be "inherent" in the prior art does not correspond to claim 1. The PTO asserts that all teachers "assess" the students, and offer lessons based on the assessment.

Claim 1 does not recite that. Claim 1 states that

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- a "list" of lessons is selected,
- a student is "assessed,"
- lessons in the list are "identified," and
- the student can select from the identified lessons.

The PTO's "inherent" prior art does not show that.

Further, claim 1 does not recite a teacher. The PTO's "inherent" prior art shows a teacher making the assessment.

#### Problem 3

As stated above, claim 1 states that the person who is "assessed" is "utilizing the display." That has not been shown in the PTO's "inherent" assessment.

#### Problem 4

No evidence of this "inherent" prior art has been given. Appellant requests that evidence be provided. MPEP § 2112 states:

EXAMINER MUST PROVIDE RATIONALE OR EVIDENCE  
TENDING TO SHOW INHERENCY.

In relying upon the theory of inherency, the examiner must provide a basis in fact and/or technical reasoning to reasonably support the determination that the allegedly inherent characteristic necessarily flows from the teaching of the applied prior art.

This request is further supported by common sense. If the

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type of assessment is "inherently" always present, then why don't the Siefert and Ziv-El references discuss it ?

#### Conclusion re: Claim 1

For the preceding reasons, Appellant submits that the rejection of claim 1 cannot stand.

#### CLAIM 3

The subject matter of claim 3 has not been shown in the prior art. Claim 3 recites:

3. Method according to claim 1, wherein the educational standing is measured at least once **by reference to the path** taken by the student through materials available for examination.

The Specification, near its end, in "Additional Consideration" number 4, provides an example of the "path."

4. Assessment of the student's current status was discussed above. One element which can be used in the assessment can be a trace of the **student's path** through the materials presented by the professor. Such a trace is commonly called a "clickstream."

For example, if a student in a Chemistry course repeatedly returns to a lesson which explains the concept of Avogadro's number, it may be assumed that the student is weak in that concept, and that remedial teaching is required in that, or a related, topic.



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The Final Office Action, page 3, asserts that Siefert, column 9, line 23 - column 10, line 63 shows the recitation in question. The undersigned attorney has examined that part of Siefert, and fails to find the subject matter of claim 3 therein.

The undersigned attorney points out that he wrote the Specification in Siefert, and he recalls no subject matter in Siefert which corresponds to claim 3, above.

For example, claim 3, together with its parent, states that

- materials are made available to a student,
- the student examines some, or all, of the materials,
- a "path" is derived from observing the student's traversal of the materials, and
- "the educational standing is measured at least once **by reference to the path.**"

The undersigned attorney cannot find those processes in Siefert.

In addition, according to 35 USC § 103, claim 3 must be read as-a-whole: the parent claim must be included. Under such a reading, the "educational standing" is measured "by reference to the path." Consequently, the "list of lessons available" which is selected will depend on the "path." That has not been shown in Siefert.

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Further, the "icons" "corresponding" to the "list of lessons" will also depend on the "path." That has not been shown in Siefert.

Further, still, the new lessons which are made available to the student, and from which the student may select lessons, will also depend on the "path." That has not been shown in Siefert.

The subject matter of claim 3 has not been shown in the prior art. Thus, the rejection fails to comply with MPEP § 2143.03, cited above.

37 CFR § 1.104(c)(2) states:

. . . the Examiner must cite the best references at his . . . command.

When a reference is complex or shows or describes inventions other than that claimed by the applicant, **the particular part relied on must be designated as nearly as practicable.**

The pertinence of each reference, if not apparent, must be clearly explained and each rejected claim specified.

Appellant submits that the Final Action fails to comply with this regulation.

To support this conclusion, Appellant points out that the Final Action relies on almost two full columns of Siefert to show claim 3 (which contains about 28 words). Those columns of Siefert contain discussions on the following topics, and features, of the

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invention:

-- Availability of references which discuss different teaching methods used for different students having different learning behavior.

(Column 9, lines 24 - 36.)

-- Under the invention, measuring the rate of learning of a student during a lesson, and urging the student to end the lesson when the rate begins to falter. (Column 9, lines 37 - 50.)

-- A definition of the elements are found in a particular form of the invention. (Column 9, line 51 - column 10, line 1.)

-- Students can maintain discussions with each other, and with a teacher, using video conferencing. (Column 10, lines 2 - 7.)

-- A participant can interact with the invention at numerous different locations, at different times. For example, a person can learn how to fill out a certain form at one location, and then fill out the form itself at another. (Column 10, lines 8 - 25.)

-- Three examples of different styles of learning found in students. (Column 10, lines

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26 - 43.)

-- Developing a "profile" of a student. The usual name-age data is obtained, together with previous learning accomplished. The student's preferred style of learning is ascertained, and one approach is given for doing that.

(Column 10, lines 46 - 64.)

Appellant points out that the issue-at-hand is whether the nearly-two-columns of Siefert, just summarized, show the "path" of claim 3. Appellant submits that the summary just given shows no such "path." Consequently, the Final Action fails to comply with 37 CFR § 1.104(c)(2), in failing to show precisely where the "path" of claim 3, and its claimed usage, is found in Siefert.

#### **Claims 6 and 7**

Claim 6 and 7 recite:

6. Method according to claim 1, wherein some courses on the list are not represented by icons.

7. Method according to claim 1, wherein some courses on the list are represented by icons, but selection of such icons causes no display of a corresponding lesson.

The PTO takes Official Notice that active and inactive icons

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are well known in video games. In response, the undersigned attorney previously traversed the Official Notice, and requested a citation of evidence showing such icons. (See MPEP § 2144.03.) In apparent response to this request, the PTO has submitted an AFFIDAVIT showing icons in video games.

However, in Appellant's previous Amendment, page 9, (mailed November 12, 2002), Appellant gave one reason for the traverse, and the request for the citation of evidence:

One reason is that no relevance is seen  
between video games and the claimed invention.

To date, no relevance has been shown between the claimed invention and video games. Therefore, Appellant submits that the video-game-icons are non-analogous art.

In addition, a logical flaw seems to exist in the PTO's position. Inactive icons in video games were Officially Noticed, and their existence later supported by an AFFIDAVIT. However, those Noticed icons represent situations which may occur, or be available, in the future to a game player. Consistent with this, the first Office Action states:

. . . certain advanced scenarios [which] are  
not available for selection until certain  
tasks are performed.

(Office Action, page 4, top.)

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Then, the Office Action asserts that, regarding the invention, inactive icons representing lessons would be obvious, to represent lessons which may be available in the future.

Thus, the Office Action makes an analogy between (1) future scenarios in video games and (2) future lessons under the invention.

However, Appellant submits that any such analogy is prompted by Appellant's own disclosure, which is prohibited. One reason is that other icons exist in video games. Those icons are clearly irrelevant.

-- For example, when a player kills invading aliens, don't they sometimes turn "grey," ie, inactive ?

-- As another example, in a pinball-type game, don't certain icons remain inactive until an adjacent target-icon is struck by the ball ? Then, the inactive icons become active, and will issue points if struck.

-- As a third example, in a shooting-type game, don't some icons remain inactive until random times, at which they begin to attack the player ?

Other examples certainly exist, of icons which are inactive, but do not represent future scenarios.

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Therefore, of all the possible inactive, or "greyed out," icons present in video games, the PTO has chosen to rely on "future scenario" icons. Appellant suggests that a teaching is required for arbitrarily Noticing the "future scenarios icon" supposedly found in video games, to the exclusion of the other three just postulated.

If no teaching is given, then it is reasonable to assume that Appellant's own disclosure is being used as the teaching.

In addition, even if the PTO's Noticed grey icons are accepted, no teaching has been given for combining that type of icon with Siefert and Ziv-El, as opposed to the three types of icon just enumerated.

In addition, Applicants repeat that Official Notice is a tool to eliminate finding the Noticed subject matter in a printed publication, for example. Official Notice does not eliminate a need for a teaching for combining the Noticed subject matter with the other two references.

No teaching has been given.

Additional Point re: Claim 6

Claim 6 recites:

6. Method according to claim 1, wherein some courses on the list are not represented by icons.

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This concept has not been shown in the prior art, not even in the Noticed subject matter. MPEP § 2143.03 states:

To establish prima facie obviousness . . . **all the claim limitations** must be taught or suggested by the prior art.

The Final Office Action, page 3, states:

With respect to claims 6 and 7, Official Notice is taken that it is well known to display "active" and "inactive" icons, where the user can initiate a sequence only by selecting an "active" icon, as for example in computer games where certain advanced scenarios are not available for selection until certain tasks are performed.

Displaying icons in this manner would have been obvious to one of ordinary skill in the relevant art for the purpose of allowing the user to view unavailable as well as available lessons, to see what may be available in the future.

Appellant points out that this passage is self-contradictory. On the one hand, the passage states that, in video games, certain icons are inactive, and become activated when "certain tasks are performed."

On the other hand, the passage states that this suggests that this activation is obvious to one in the relevant art

. . . for the purpose of allowing the user to view unavailable as well as available lessons, to see what may be available in the future.



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But this contradicts the first statement. Or at least does not follow, as a matter of logic, from the first statement.

The first statement asserts that, in video games, certain icons are inactive, and become activated when "certain tasks are performed." That in no way suggests that a student can "view unavailable as well as available lessons, to see what may be available in the future."

If the analogy is to be accurate, then the students can **NEVER** "see what may be available in the future." They can only see icons made available because "certain tasks [were] performed.

Further, the PTO's rationale does not even lead to claim 6. Claim 6 states that "some courses on the list are not represented by icons." The PTO's rationale does not show that.

Point re: Claim 6 vs. Claim 7

Claim 6 states that some courses are not represented by icons. Claim 7 states that some courses **ARE** represented by icons, but actuation of the icon does not launch the course.

Thus, the two claims are contrary, on the issue of displaying icons for a given course. Under claim 6, the icon may not be displayed. Under claim 7, the icon **MAY BE** displayed.

The PTO has given no explanation of how its rationale leads to the contradictory aspects of claims 6 and 7. Thus, at least one

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of claim 6 or claim 7 has not been shown in the prior art.

#### CLAIM 8

Claim 8 recites:

8. A system, comprising:
  - a) a computer system, which includes presentation means for presenting audio-visual information to students;
  - b) multiple, different courses, stored in the computer system, each comprising a collection of lessons;
  - c) for each student in a group, a student data model, which contains information describing the student's educational status;
  - d) for each course, a course structure file, which indicates
    - i) which lessons in the course can be taken by the student without restriction, and
    - ii) which lessons require prerequisite courses be taken first;
  - e) framework software means which
    - i) identifies a student,
    - ii) examines (1) that student's data model and (2) the course structure, and,
    - iii) based on the examination, makes a determination of options to display to the student, and
    - iv) displays the options.

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The Final Action, page 3, asserts that Siefert, column 9, lines 1 - 5, shows the claimed "course structure file." However, claim 8 recites:

- d) for each course, a course structure file, which indicates
  - i) which lessons in the course can be taken by the student without restriction, and
  - ii) which lessons require prerequisite courses be taken first.

The cited section of Siefert, in referring to presenting lesson 13 after lessons 1 - 12, may show claim 8(d)(ii). However, claim 8(d)(i) has not been shown in Siefert.

Claim 8(d) states that **for each course**, some lessons need prerequisites, and other lessons do not. Claim 8(d)(i) states that the "course structure file" indicates which lessons "can be taken by the student without restriction." The cited passage of Siefert states the opposite (namely, that lesson 13 must follow lesson 12), which clearly does not imply claim 8(d)(i). Siefert is opposite because requiring lesson 13 to follow lesson 12 is **NOT** "without restriction."

Further, claim 8(e) recites:

- e) framework software means which
  - i) identifies a student,

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ii) examines (1) that student's data model and (2) the course structure, and,

iii) based on the examination, makes a determination of options to display to the student, and

iv) displays the options.

The PTO has not identified (1) the "options," (2) nor the combined processes of claim 8(e)(ii) and (iii) in the applied references.

#### Claims 10 - 13

Claim 10 recites:

10. A method, comprising:

- a) identifying a person viewing a display;
- b) presenting, on the display, a collection of icons, each of which causes a lesson to be presented when actuated; and
- c) evaluating whether the person has attained predetermined prerequisites and, if so, presenting additional icons on the display.

As to claim 10(c), it may be true that, in a video game, when a player achieves certain attainments, additional icons may appear on the display. For example, when the player kills 100 Invading Cyborgs, icons representing additional weapons may be added to the display.

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However, the claim must be read as-a-whole. Section 103 requires that. The "icons" of claim 10(c) clearly represent new lessons. When those icons are actuated, the new lessons are presented, as in claim 10(b).

The PTO has presented no reasoning why the art of video games should be applied to computer-based education. In fact, the two are clearly non-analogous.

-- One is a frivolous waste of time, although perhaps amusing.

-- The other is a serious pursuit, necessary and desirable in any society.

The Final Action takes Official Notice of two elements.

#### First Element

Appellant traversed the Notice of the first element, which element is that, in video games, certain icons are added upon achievement of certain tasks, and requested a citation of evidence showing such icons. (See MPEP § 2144.03.)

One reason is that the Notice relies on video games. Appellant fails to see relevance of video games to the present invention.

In addition, no teaching has been given for adding the video-game icons to Siefert and Ziv-El. For example, the Official Notice

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relies on a hypothetical video game which displays a special icon making available an advanced level of play, when a player scores a threshold number of points. Even if such video games exist, no teaching has been given for combining that approach with Siefert and Ziv-El.

In fact, it would seem that video games represent non-analogous art. One reason is that video games are played repeatedly, in order to attain the higher levels of mastery suggested by the PTO. Applicants submit that this type of repetition is not found in educational pursuits.

A second reason is that, in educational pursuits, some courses are required as pre-requisites for others. The undersigned attorney is unaware of video games which are pre-requisites for others, although he is no expert in the field of video games.

#### Second Element

Appellant also traversed the second element (described below), and requested evidence.

In addition, Applicants point out an apparent logical flaw in the second element. That element is this:

. . . It is well known to remove options for choosing lessons where the user has already demonstrated mastery of the material.

Isn't this contrary to the PTO's Notice of icons in video

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games ? That is, when players score larger numbers of points, don't they get **MORE** options, not fewer ?

Also, the undersigned attorney cannot agree that the Noticed element actually exists. For example, assume that a student obtains straight A's in a Master's Degree program in Computer Science. That student has thereby demonstrated "mastery of the material," correct ? What "options" for choosing lessons are then removed from such a person ?

Doesn't the student actually obtain **MORE** options, at least because of the respect earned in the faculty of the college ? The faculty is the agency controlling the options, correct ? If the faculty is impressed with the student, doesn't the student get more "options" ?

Is the PTO suggesting that the Registrar, or faculty, of that person's college will now restrict the number of courses to which the person has access ?

Appellant submits that the Noticed Second Element has no relevance to educational pursuits, as in the claimed invention, or at least the relevance has not been demonstrated.

#### Additional Point

The PTO asserts that it is "inherent in a method of providing lessons" to provide this step of removing options. (Final Action, page 4, first paragraph.) MPEP § 2112 states:

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EXAMINER MUST PROVIDE RATIONALE OR EVIDENCE  
TENDING TO SHOW INHERENCY.

In relying upon the theory of inherency, the examiner must provide a **basis in fact and/or technical reasoning** to reasonably support the determination that the allegedly inherent characteristic necessarily flows from the teaching of the applied prior art.

Appellant requested that the "basis in fact and/or technical reasoning" required by this MPEP section be provided.

One reason is the following. From 1979 to 1981, the undersigned attorney was a graduate student in Electrical Engineering at the University of Illinois, Champaign-Urbana, and acted as a teaching assistant. As a teaching assistant, he "provided lessons."

He can recall no instance of withdrawing any options for choosing lessons, when a student demonstrated mastery of any material.

For at least this reason, the "inherent" subject matter seems dubious, and support for it is requested.

To date, no support has been given by the PTO.

#### **Claim 11**

As explained in the Summary of Argument, the rejection of claim 11 is based on Official Notice. That Notice is traversed. Until evidence is presented supporting the Notice, the rejection



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cannot stand.

#### **Claim 12**

Claim 12 recites:

12. A method, comprising:

- a) presenting icons on a display;
- b) detecting actuation of an icon and, in response, presenting educational lessons on the display;
- c) ascertaining whether a student of the lessons has reached a predetermined level of education and, if so,
  - i) presenting additional icons on the display; and
  - ii) removing other icons from the display.

Claim 12(c)(i) and (ii) are rejected, based on Official Notice. Appellant traverses the Notice, and requests evidence in support of the rejections.

Until evidence is presented supporting the Notice, the rejection cannot stand.

#### **Claim 13**

Claim 13 is an apparatus claim, somewhat similar to claim 12, which is a method claim. Method claims and apparatus claims are separately patentable, as restriction practice readily admits.

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Thus, for grouping-of-claims purposes, claims 12 and 13 are separately patentable.

#### **Claim 14**

Applicants point out that claim 14(c)(i) states that

- 1) "first software means" runs on a server,
- 2) which delivers a packet to the remote computer (eg, the student's PC),
- 3) the data packet contains icons, which the student actuates, and
- 4) the student's actuation causes lessons to be delivered to the student's PC.

That has not been shown in the applied art.

Nor has the combination of the second software means with the first software means.

#### **RESPONSE TO OBVIOUSNESS REJECTION OF CLAIMS 16 - 18, GROUP 2**

Claims 16 - 18 were rejected as obvious, based on Siefert, Ziv-El, and Truluck. Claim 16 recites:

16. Method according to claim 1, and further comprising the steps of (1) detecting the arrival of predetermined periods in time and (2) during said periods, refraining from making lessons available to the display.

Point 1

Applicants submit that, even if the references are combined, claim 16 is not attained. One reason is that claim 16 recites "predetermined periods in time" and "refraining from making lessons available to the display" "during said periods."

Restated, during the "periods," no lessons are "available to the display." Thus, no students at all can see lessons, during the period. The Specification, page 11, provides examples explaining why such an arrangement can be useful. For instance, during mid-term examinations, all computer-lessons are prohibited, to all students.

According to the Office Action, Truluck shows this prohibition, because he shows a schedule of lessons for each student. The Office Action asserts that, since a student does not get a lesson between lessons, the "in-between" period of Truluck shows the prohibition of claim 16.

However, Truluck does not prohibit **ALL** lessons, he just says that a given student does not get lessons between lessons. But **OTHER** students may get lessons at that time.

From another point of view, even if Truluck is combined with the other two references, the prohibition of claim 16 is not attained. In Truluck, no lessons are presented during predetermined times, **BUT ONLY FOR THE STUDENT WHO DEFINES THOSE "DEAD" TIMES IN HIS OWN SCHEDULE.** But the "display" of claim 1

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would still present lessons for **other students**.

Stated more simply:

-- Truluck states that, at certain times, a **given person** takes no lessons. But other persons can still take lessons at those times, and nothing in Truluck prevents that.

-- In contrast, claim 16 states that, at certain times, a **display** of the system receives no lessons. That is not what Truluck shows. His display could display lessons 24 hours per day, but to different students.

Stated yet more simply:

-- The student's schedule in Truluck places limits on what the **student** receives.

-- But it places no limits on what Truluck's system delivers to **other** students. Those other students could watch the display at all times, contrary to claim 16.

#### Point 2

It appears that the PTO is reading Truluck in an unjustified way. The PTO is apparently assuming that, once a student in Truluck sets up a schedule, that schedule is "cast in stone."

However, Truluck states that the schedule can change. (Column

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5, lines 9 - 14.) Truluck also states that the student can change the schedule. (Column 6, lines 13 - 15.)

Therefore, the PTO asserts that Truluck's student sets up a schedule of classes. The PTO assumes that, between the classes, no computer-given classes will be attended by the student. The PTO treats those between-class periods as the "predetermined periods" of claim 16.

But claim 16 states "(2) during said periods, refraining from making lessons available to the display." If Truluck's student can change the schedule at-will, which he can, then the claimed "refraining" is not present.

The preceding applies to claims 17 and 18.

#### **Claim 17**

Dependant claim 17 states that "no lessons" are given during a certain period. Since Truluck states that some students can view lessons in the corresponding period, claim 17 is not found in Truluck.

#### **Claim 18**

Dependant claim 18 states that "no lessons" are given during a certain period. Since Truluck states that some students can view lessons in the corresponding period, claim 17 is not found in Truluck.

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**re: Grouping of Claims**

Claim 16 depends from claim 1. Claim 17 depends from claim 10. Claim 18 depends from claim 12.

Since the argument above indicates that claims 1, 10, and 12 are separately patentable, and since the argument in this section indicates that the recitations of claims 16, 17, and 18 are not found in Truluck, then, necessarily, dependant claims 16, 17, and 18 are separately patentable.

**Response to Final Action's "Response to Arguments"**

The Final Action asserts that lessons are "inherently" presented based on an "assessment." (Page 5, first paragraph.) Appellant points out that the claims do not recite that. Restated, the mere presence of assessment and lessons in the prior art do not show Appellant's claims.

As to Official Notice of icons (page 5, last paragraph), Appellant points out that the Noticed icons do not possess the properties of the claimed icons.

At the top of page 6, the Final Action asserts that adding icons "is not patentable over the prior art." That statement is contrary to the requirement of section 103 that the claims are read as-a-whole. Further, that statement presumes that the remainder of the claims is found within the prior art, which has not been

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shown.

Further still, that statement is based on an erroneous application of section 103. Section 103 states that the subject matter of a claim "as-a-whole" must be obvious, based on the prior art. The erroneous application is this: the assertion that (1) Siefert and Ziv-El render part of a claim obvious, and (2) the rest of the claim (that regarding "icons") "is not patentable over the prior art."

The claims cannot be divided into two parts, wherein one part is considered "obvious," and the rest considered as not supplying patentability. That is not the standard of section 103.

As to the law of obviousness, the Dembiczak case, being later than those cited in the Final Action, controls.

As to "autonomy" (Page 6, last sentences), the Brief has discussed the issue.

The Final Action, top of page 7, asserts that Siefert shows claim 3. The Brief proves otherwise. For example, the "path" influences the "assessment," which influences the "icons" which are displayed. Where is that in Siefert ?

As to icons (page 7, first full paragraph), Appellant repeats that the claims do not recite icons of the type shown in the PTO's prior art. The fact that both types of icons may indicate options available does not change this fact.

As to what Siefert shows (Page 7, third paragraph), the PTO

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must specifically identify the claim recitations in Siefert.

As to "removing lessons" (Page 7, bottom), Appellant points out that claim 11 does not recite that, but recites "removing" "icons."

The Final Action, sentence bridging pages 7 and 8, states "Lesson 13 is unavailable to the user after it has been completed." Appellant cannot substantiate that Siefert shows that, and requests proof.

As to claims 16 - 18 (Page 8, first full paragraph), it may be technically correct that the claims do not explicitly state that "All students are prevented . . ." However, the issue is whether Truluck shows claims 16 - 18.

If the recitations of those claims are found in Truluck, then **no lessons** are displayed during the "periods" in question. Consequently, **no students** can see lessons (because no lessons are present." Thus, by de Morgan's Theorem, ALL STUDENTS are prevented from seeing the lessons.

Therefore, if the recitations of claims 16 - 18 are found in Truluck, then all students are prevented from seeing lessons (at the times in question). Since no such prevention exists in Truluck, the recitations cannot be found in Truluck.

Stated more simply: since a necessary consequence of the claims is absent from Truluck, the claims themselves are also absent.




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**CONCLUSION**

Appellant requests that the Board overturn the rejections, and pass all claims to issue.

Respectfully submitted,

  
\_\_\_\_\_  
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ATTACHMENT: Appealed Claims

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ATTACHMENT: Appealed Claims

1. In a method of presenting educational lessons on a display, the improvement comprising:

- a) making an assessment of the educational standing of a person utilizing the display;
- b) selecting a list of lessons available;
- c) based on the assessment, identifying lessons available to the person and displaying corresponding icons on the display; and
- d) accepting selection of an icon from the person, and presenting the chosen lesson.

2. Method according to claim 1, wherein the educational standing is measured by number, type, or both number and type, of lessons completed.

3. Method according to claim 1, wherein the educational standing is measured at least once by reference to the path taken by the student through materials available for examination.

4. Method according to claim 1, wherein the step of presenting a lesson comprises transmitting information over a network.

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5. Method according to claim 4, wherein the network comprises a public-access, packet-switched network.

6. Method according to claim 1, wherein some courses on the list are not represented by icons.

7. Method according to claim 1, wherein some courses on the list are represented by icons, but selection of such icons causes no display of a corresponding lesson.

8. A system, comprising:

a) a computer system, which includes presentation means for presenting audio-visual information to students;

b) multiple, different courses, stored in the computer system, each comprising a collection of lessons;

c) for each student in a group, a student data model, which contains information describing the student's educational status;

d) for each course, a course structure file, which indicates

i) which lessons in the course can be taken by the student without restriction, and

ii) which lessons require prerequisite

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courses be taken first;

- e) framework software means which
  - i) identifies a student,
  - ii) examines (1) that student's data model and (2) the course structure, and,
  - iii) based on the examination, makes a determination of options to display to the student, and
  - iv) displays the options.

9. (Cancelled)

10. A method, comprising:

- a) identifying a person viewing a display;
- b) presenting, on the display, a collection of icons, each of which causes a lesson to be presented when actuated; and
- c) evaluating whether the person has attained predetermined prerequisites and, if so, presenting additional icons on the display.

11. Method according to claim 10, and further comprising:

- d) removing selected icons from the collection of icons, if the person has attained the predetermined

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prerequisites.

12. A method, comprising:

- a) presenting icons on a display;
- b) detecting actuation of an icon and, in response, presenting educational lessons on the display;
- c) ascertaining whether a student of the lessons has reached a predetermined level of education and, if so,
  - i) presenting additional icons on the display; and
  - ii) removing other icons from the display.

13. A system, comprising:

- a) means for presenting icons on a display;
- b) means for detecting selection of an icon and, in response, presenting educational lessons on the display;
- c) means for ascertaining whether a student of the lessons has reached a predetermined level of education and, if so,
  - i) presenting additional icons on the display; and
  - ii) removing other icons from the display.

14. A system, comprising:

- a) storage means for storing educational lessons, in computer-readable format, each lesson comprising at least

one sequence of video frames;

- b) server means, having access to the storage means;
- c) first software means, running on the server means, for transferring a data packet to a remote computer,
- i) said data packet containing a set of lesson-  
icons, each of which, when actuated, delivers  
signals to the server means, causing the  
server means to retrieve a respective lesson  
from the storage means, and transmit the  
lesson to the remote computer, and
- ii) said first software means utilizing a public-  
access, packet-switched network to transfer  
the packet;
- d) second software means, running on the server means, for determining whether a person participating in a lesson at the remote computer has achieved a predetermined educational background and, if so, transferring additional lesson-icons, which induce transfer of additional lessons.

15. System according to claim 14, and further comprising

- e) a plurality of remote computers, each of which is operated by a different student, and
- f) a plurality of displays, one associated with each

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respective remote computer,

- i) each display of which presents a collection of icons representing courses available to the respective student, and
- ii) the content of each collection is determined by the first software means, or the second software means, or both.

16. Method according to claim 1, and further comprising the steps of (1) detecting the arrival of predetermined periods in time and (2) during said periods, refraining from making lessons available to the display.

17. Method according to claim 10, and further comprising the steps of (1) detecting the arrival of predetermined periods in time and (2) during said periods, refraining from making lessons available to the display.

18. Method according to claim 12, and further comprising the steps of (1) detecting the arrival of predetermined periods in time and (2) during said periods, refraining from making lessons available to the display.